FY 2008 S & PF COMPETITIVE GRANT PROPOSAL

Applicant
Kentucky Division of Forestry
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Frankfort, Kentucky 40601
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Project Information

Project Name: Economic Impact of Fire on Forest Product Values In the Appalachian Regions of Kentucky and Tennessee

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Abstract: This project has been developed to pilot test a procedure for estimating wildfire timber devaluation in upland hardwood stands. If successful this project will provide state and regional data on wildfire degradation directly for the Appalachian regions of Kentucky, Tennessee, Virginia, Georgia and Alabama. A successful study will also provide a template that could be used to predict economic loss due to fire in all other geographic regions not limited to just the needs of the Southern region. The overall objective of the pilot project will be to provide estimates of timber devaluation to eastern Kentucky and eastern Tennessee forests resulting from the occurrence of wildfire regimes common to the Appalachian region. The results will provide estimates of the overall value (dollar) lost to wildfires through timber devaluation in the

Project Description

The objectives require that forest assessments are completed to evaluate and quantify both areas that have been rendered unmerchantable by fire as well as merchantable stands that have been subjected to volume and value loss due to degradation by fire. These requirements indicate that assessments of standing forests must be

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completed to determine the areas that have been rendered unmerchantable as well as to determine the total tree volume and value loss due to fire. The project will be divided into two studies. The first study is designed to quickly estimate value loss estimates from standard timber inventory procedures. The second study is constructed to provide value loss estimates across eastern Kentucky (Appalachian Physiographic Region).

Study 1 Stand Level Wildfire Loss Estimates require the following procedures in each state.

Evaluation Criteria

National and Regional Relevance

Wildfires continue to be a preeminent concern for much of the US. Certainly in the rugged and mountainous

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Technology
The project will use geospatial wildfire data from the states involved combined with field observations and assessments. The results would be easily applied by states to predict timber devaluation losses through the use of geospatial technologies such as GIS employed by each state. This allows for flexible use of the results of the project.

Integrated Delivery
Information from this project will be disseminated through Southern Region Forestry Extension with outlets in all 13 Southern states though the Cooperative Extension network of each land-grant university. Information will also be made available through publications in the *Southern Journal of Applied Forestry*.

Leverage
KDF and TDF will be contributing $151,000 each. UK and UT will be involved with a minimum of $20,000 each in unbillable match. SRS has committed resources for data analysis (cost estimate of match not yet calculated).

Influence Positive Change
The project provides information directly beneficial to all agencies, governments, and individuals where timber is subjected to wildfires. This will allow estimates of timber devaluation due to fire and provides a mechanism to enact changes in resource allocation to wildfire suppression and control. A public more informed of a resource's value is more likely to respect and support public policies that enhance that resource. A healthy forest provides cleaner water, higher value timber, stores more carbon, and provides more diversity in the ecosystem. On an individual level, landowners are more likely to spend time improving their forests if the result of their work is measurable. Quantifying the ill effects of fire is a catalyst for personal and societal involvement and active support in bettering their forest resource.

Timeliness
Projects should show results in no more than three years.